

## WHAT THE GENERAL PRACTITIONER CAN DO TO IMPROVE THE DIAGNOSIS AND TREATMENT OF DISEASES OF CHILDREN \*

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In the time allotted, some part of the matter involved can be touched upon, and as the specialty of Pediatrics is, in reality, no specialty at all, but merely the practice of general medicine among those of tender age, physicians may pardon a pediatricist if he joins in such a discussion.

Possible improvements on current methods of treating diseased children offer a wide field for discussion, wider even than would be afforded by a consideration of those things which might well be considered in an attempt to better pediatric diagnostic methods. For the term "treatment" must be taken to include not only curative measures, but prophylactic measures as well. Even though prophylaxis leads far afield into studies of nutrition, ante-natal hygiene, personal hygiene, school hygiene, recreational hygiene, and to an understanding of many other aspects of public health.

The questions that arise out of the growing lay interests in preventive pediatrics might well occupy this society through many hours of its sessions, for in such are bound up much that is momentous for the future of our profession. These problems and their possible solutions are so many and so revolutionary in their implications that the present offers occasion to do no more than merely to indicate a few of them. Certain it is, however, that the answer to the queries inherent in the title of this paper would be incomplete if it did not point out that one of the general practitioner's greatest contribution to pediatric improvement must come through the organization of a service of information, advice and education to parents, designed to keep the children of the community in health. Such a service must begin by instructing the mother about her unborn baby. Later during the child's infancy it will be continued, and it will insist on properly supervised and adequate breast feeding when this is possible, or, in the event of a failure of the breast secretion, upon a well-guided course of artificial feeding. Already, such endeavors as these are enlisting the sympathy and effort of many physicians, but such a service must go further. Oversight of the nutrition and of the personal hygiene of the runabout child, should be a duty added to the many others under which the general practitioner staggers, and, at this point, even, he must not halt for the individual well-being of the school child, and the conservation of the adolescent's mental and physical health are essentially medical problems to be solved by the physician in general practice.

If we maintain our leadership in matters of health, we must be prepared to organize as part of our practice health services on some basis of proper remuneration, for, whether we like it or

not, service must be given and leadership of the fast-growing health movement must be seized, otherwise not only will we fail in our duty, but we will lose the confidence and respect of our communities; a confidence and respect which has come to us as an inheritance from a long line of devoted general practitioners. It is for us to earn and to hold a continuance of this confidence and respect. Although only the medically trained can hope to accomplish results of real value, lay organizations, some of them hostile to our profession, already are reaching out to do much of the work. No matter how we as individuals view it, the movement for general health education is here, and it is here to stay.

The neurotics of the future are being trained today, trained by mothers, grandmothers and nurses, whose mistaken efforts to be kind often develop egocentricity and willfulness in their charges, and the physician who knows how suggestible children are, and who is aware of their tendency to negativism and egocentricity has to counteract this training, and to instruct parents how to treat their children so that they shall not grow up neurotic. To persuade mother or auntie or any other doting relative that it is kinder to keep an adored youngster out of the limelight, away from the center of the stage, and to revive in practice the old adage, "Children should be seen and not heard," will demand all that any man has of fortitude and patience.

No more important contribution to Pediatrics has been made than that which follows from the pioneering of Howland and Marriott on the importance of maintaining a normal fluid balance in the young child's body. The recognition of the urgency of the need for rapidly restoring fluid to compensate that lost from the tissues has been followed by a new emphasis on the value of the subcutaneous, intravenous, and intraperitoneal routes, for the injection of sterile normal saline solutions. Of these routes, the intraperitoneal is usually preferred unless peritonitis, or abdominal distension complicates the clinical picture. When the peritoneal route is chosen, it must first be determined that both the bladder and the stomach are empty, and that intra-abdominal disease is absent. The fluid may be injected by gravity or from a Luer syringe. It is important that the needle used shall have a short bevel (2 mm.). The tissues of the abdominal wall are seized about an inch below the umbilicus, between the thumb and fingers of the left hand. The needle is passed through that part of the abdominal wall which is included in the grasp of the digits. In this way the passage of the needle is guided, and the underlying viscera are protected. Once the needle is through the wall, the shank is depressed till it lies almost parallel to the skin, and it is then thrust gently upward. The shank is then connected, and the fluid flowing slowly is allowed to enter from either the gravity glass or from the Luer. Pains must be taken to maintain the temperature of the fluid at 100 to 101 degrees, for the fluid, as it flows from the

\* Read before the Fifty-first Annual Meeting of the Medical Society, State of California, Yosemite Valley, May, 1922.

needle-point, will be about 3 degrees colder than it is while in the container. Certainly a mastery of this technique and a wider use of this method by the general practitioners will tend to improve the treatment of disease in children.

The more frequent employment of glucose in intravenous injection, another desirable measure too little used, also offers the profession opportunity to improve its therapeutic methods. The great value of this measure rests upon the fact that under the stress of non-diabetic ketonuria, of the acidosis, which complicates vomiting and diarrhoea, during general infections and in most toxæmias, the glycogen reserve of the body becomes depleted and the reserve can be augmented, and to some degree restored by the intravenous use of glucose. The method has also the advantage that glucose in hypertonic solutions of from 10 to 15 per cent draws fluids from the tissues into the blood stream, and also acts as a diuretic. Unfortunately, we have been taught to fear the use of sugars. Nevertheless, the only way to maintain the glycogen reserve in the presence of acidosis is to give glucose or lactose solution freely by mouth. Often if quantities of such a sugar solution, well diluted, are given persistently, and in spite of the emesis, vomiting will be promptly aborted and checked. In persistent or in neglected cases of cyclical vomiting, when sugar by mouth alone is ineffective, the intravenous injection of 10 per cent glucose solution is life-saving, and the intraperitoneal injection of normal saline solution is an invaluable adjunct.

The general practitioner who is earnestly endeavoring to improve the treatment of children, would make no mistake if he resorted to a more extensive use of hydrotherapy. Packs of mustard, hot, tepid or cold—full packs or one-half packs—and baths will really do all that antipyretic drugs are vainly expected to accomplish.

If an increasing knowledge of hydrotherapeutic methods led to the abandonment of many antipyretic drugs in pediatric practice, much would be accomplished for the benefit of sick children. There would certainly be a great advantage in the development of an attitude of distrust for too much drug therapy in general. A determination to use drugs only where specifically indicated, under circumstances in which the physiological action of the drug makes it a logical weapon against the pathological process which is causing distress, would be the mark of much progress.

The practitioner who is able to escape the over-use particularly of laxative and purgative drugs, and who can attain the results he seeks by wise regulation of diet, regime, exercise and habit training, and hydrotherapy, certainly is contributing to better the treatment of disease in children. So, also, is that man who himself has learned and who has taught the nurses and the mothers of his patients that a vomiting child who is constipated is to have its bowels moved by enema only, that under no circumstances shall purgative drugs be given it, for fear that an obstruction of the gut has occurred. The admonition may be of use but

rarely, but the general application of such a rule might have saved some of the babies who have died after intussusception or volvulus or the strangulation of a hernia.

The unnecessary mortality rate in diphtheria, dependent upon delayed diagnosis or upon inadequate dosage of antitoxin, is a constant reminder that in this field, at least, there is opportunity to improve diagnosis and treatment. Here clinical signs may be misleading and the laboratory a fallable aid, but, for the child's sake, let it never be forgotten that it is harmless to give antitoxin unneeded, and murder to omit when it is needed. The practitioner who knows what Park and his associates have done, and who practices to elucidate the problems of treatment and of prophylactic in diphtheria that they have taught, is surely contributing much to the betterment of medicine, especially if he has come to use antitoxin by intramuscular injection rather than by subcutaneous. He ought also to have in mind that intravenous injection can possibly be used in the treatment of neglected or of very toxic cases. When he does find it necessary to use the vein for injection of antitoxin, he must scrupulously observe the technique of desensitization.

A wider appreciation of the value of anti-dysentery serum would be an advantage to many infected children, if it led to more frequent use by intravenous injection in those patients who have become deeply intoxicated. The more frequent use of polyvalent anti-streptococcus serum in those patients whose blood stream has revealed infection by blood culture, might not accord with the views of all authorities, but well diluted in hypertonic glucose saline, given slowly, this serum will often prove to be life-saving; under the same pathological condition, the additional use of transfusion by the direct or indirect method in these septic cases amplifies the possibilities for good. A more frequent resort to transfusion, always with due regard to its proper technique, offers the physician opportunity to save lives. Even the intramuscular injection of whole blood, simple as it is, is a neglected procedure in spite of the fact first demonstrated by Oscar Schloss that it checks idiopathic hemorrhage of the new-born with promptness and certainty. It is hardly less valuable as an adjunct to dietetic measures in the treatment of infantile anæmia and nutrition.

A glance over the domain of dietetics, nutrition, and therapeutics, reveals other fields that might reward the physician's closer cultivation. Vitamines are flung at us from every angle until we are, as the English say, "quite fed up on them," and with all the pother, we have learned just what our forefathers knew and what every physician knows, that is, that fat and green vegetables and the parts of grain next the pericarp are essential to complete nutrition. It is not to be wondered at that many physicians in general have been turned away from interest in foods and feeding by pesky percentages and the curse of calories wished upon them by the higher-browed mathematicians in signed and cosigned pages of

formulæ. Certainly, when the United States Bureau of Child Hygiene send broadcast such pernicious misinformation as is embodied in the statement that a child of any age who has no more than four teeth should be restricted to a fluid diet, it is time that medical men awakened to a deeper interest in nutritional and dietetic problems. Such awakened interest is needed to enable the profession to combat fallacies of this sort, and if the interest is gained the reward will be an added power for good work in the prevention of disease.

A simple catalogue of possible improvements in the treatment of sick children could easily run beyond the bounds of this paper, and hardly do more than touch the limits of the subject. To mention all of the possible ways and means that might aid us to improve the diagnoses of those children's diseases which so often trick us into error might well fill a volume.

Primarily, however, it is true that the better diagnosis will be made by those who remember that children, as children, possess positive anatomical and physiological peculiarities. Failure to recognize this fact leads to improper treatment. These essential peculiarities impose a special routine for the physical examination of children, quite unlike that best adapted to adults.

John Thompson, one of the wisest of those who write about sick children, has pointed out that in the examination of a child, the best information is not to be had by exploring one physiological system after another as is normally done in the investigation of adult ills. Much more valuable is a procedure based upon the use of one method of physical diagnosis after another. The most important of these methods is proper inspection.

Many a regret would have been spared had it never been forgotten that a child should always be completely undressed for a physical examination, but the child who is beyond infancy should not have its clothes taken off in the presence of the doctor. If the wilful, egocentric baby of from one to three years who struggles and screams at the slightest provocation is undressed in a room apart from the physician, and wrapped in a blanket or gown that opens down the back, he can be examined more easily. He can be brought in to the examining room on the mother's or nurse's shoulders, and with his back toward the doctor, sometimes before he is even aware of the physician's presence, the head, ears, skull, back, buttocks and legs can be inspected.

The physiological peculiarities of the well child are paralleled by a series of marked and equally significant pathological alterations in the case of those who are ill. These alterations bring about expressions of disease, and disease peculiar to children. The same sorts of pathological agents may produce clinical pictures in sick children different from those they bring about in adults; so different, in fact, that sometimes it is hard to believe the causes of the sickness identical. Then, too, certain maladies are prone to attack children,

and others quite commonly found among adult patients are so rare in early life as to be curiosities. Acute rheumatism, for instance, is almost unheard of in a child younger than three years, yet scurvy, common in the second and third years of life, has been mistakenly called rheumatism.

In examination of the infant, complete and searching inspection is more richly rewarded than is any other single means of eliciting information. The facts derived from inspection taken in the light of the history of the patient's indisposition, and with a due consideration of the natural history of disease in childhood often suffice for diagnosis, although other indicated physical and laboratory means must not be neglected. It is certainly no exaggeration to say that diagnosis could be bettered if every one who deals with sick children would devote more time to a study of the possibilities of inspection.

The position in which the child carries the head may reveal information of much value. If it is retracted, it at once suggests postcervical adenitis, which may be the result of an infected adenoid, or be a part of a retropharyngeal glandular infection, or, less frequently, it may signify a meningitis. Held to one side, the idea of an immobile torticollis or of the unusually occurring cerebellar tumor may be brought to the mind of the observer, and give him a lead. In a like manner, the child flushed with fever who protects one side of his head with the hand or by pressure against the mother's shoulder, will afford a clue which makes thorough search of the ears and mastoid imperative.

Amount and quality of the hair at once mark the state of the child's nutrition and, together with the character of the bony development in the frontal and parietal regions, give information which will reveal or exclude rickets. A look at the occipital scalp of a bed-ridden child, who has been the victim of an unexplained fever with distress, sometimes reveals the cause of the pyrexia to be a furuncle hidden in the hair, which may have been overlooked because the physician himself has not sooner raised the back of the child's head from the pillow for scrutiny.

The bulging fontanelle, the separated sutures and the peculiar eye appearance of the hydrocephalic are at once apparent, and not less noticeable is the wedge-shaped insufficient vertex of the microcephalic with the blank, staring faces beneath it.

The expression of the child's face usually reveals at once whether the mother's anxieties are justified by the real sickness, or unjustified and merely the result of her ignorance and the child's naughtiness. The anxious-looking baby with a flushed face, an obliquely held eyebrow, a slightly open mouth, the fluttering wing of whose nostrils suggest pulmonary involvement, demands prompt and thorough chest examination.

The puffy face that goes with renal disease is distinctive, but puffiness may also mark giant urticaria. Quite diagnostic is the trismic smile,

earliest sign of tetanus, and equally informing, the weary, aged faces that develop in the course of a protracted disease such as chronic diarrhœa, peritonitis, empyema, and the low-grade osteomyelitic infections. Nor is the dried-out aspect of the baby who is subject to an acute attack of vomiting and diarrhœa, open-eyed, staring, with depressed fontanelle, and hollowed cheeks to be mistaken any more than the peculiar look of sage thoughtfulness, with shut eyes, slightly retracted head, and close-clenched jaws that mark the chronic meningitic. These are almost as recognizable as the open-mouthed appearance of nasal obstruction. One important revelation that sometimes rewards inspection is the discovery of an edema about the mastoid region. When one ear is forced away from its normal relation to the scalp and head, and, when looked at from behind, occupies a position quite unlike that of its fellow, underlying mastoid-cell infection may be inferred, although it must never be forgotten that the same sign may result from a single abscess of the post-auricular glands. Such an abscess is a not infrequent complication in the presence of abrasions of an unclean, it may be a pediculous scalp. The swelling in front of the ear overlying the upper part of the parotid and the zygoma is as important an index of mastoid involvement as bulging behind the ear, and such swellings mean that there is an imperative need for surgery.

A look at the torso of the naked child may be equally informing. It is astonishing how easily even slight degrees of difference in the chest movements of little children may be discovered, but the light must be bright; it must fall equally and unshadowed, while the observer should stand at some distance behind the patient. A scrutiny of the front of the chest to note the position of the apex beat, percussion and radiography in order will confirm the suspicion that fluid is in the pleura or reveal a consolidation, unless some rarity such as sarcoma is complicating the findings. Inspection that reveals the slightest limitation in the flexibility of the spine justifies suspicion of spinal caries. The usual child is a wriggling, restless creature, and its flexible spine is invariably making some twist or other. A history of pain in the belly, or of pain developed by jarring, makes it doubly probable that early Potts disease is present. This malady brings with its full development such hideous crippling that the physician alert for his patient's interest must keep its possibility always in mind, because often, if diagnosis is made early and proper treatment is promptly adopted, the disease can be checked.

Through frequent and careful oversight of the spines of the children who come to him, the general practitioner may discover curvatures and postural defects, and by measures of corrective gymnastics overcome such defects while they are easy of correction. It is doubtful if any single division of pediatric endeavor will better reward the general practitioner than a study of the application and principles of corrective and prophylactic gymnastics, a study which will enable him to re-

store normal posture and to improve the nutrition of children.

It would pass the bounds of this paper to catalogue all that is to be learned from inspection of the extremities, especially of the hands, or from simple observation of the abdomen.

There are certain children's diseases readily to be recognized because the appearance, attitude and expression of the patient testifies to their presence. Of these, two, infantile scurvy and mongolism, sometimes reach the hospital unidentified or misdiagnosed. In appearance, the sufferers from scurvy are pale, irritable, with pain expressed in every feature. They lie in a state of pseudoparalysis, inert, with the thighs drawn up, guarding one or both legs, or perhaps an arm from movement or interference. Perhaps with bruises here and there on the skin, sometimes with a one-sided proptosis, the result of a hemorrhage, which has invaded the subperiosteal region of one orbit. Other subperiosteal hemorrhages usually of the long bones, but especially of the femurs, may be present and palpable. When there are erupted teeth or teeth about to erupt, the gums are spongy, swollen, and ecchymotic; too often sloughs may be found, sequels of a mistaken resort to that ancient barbarity, the gum lancet. Such a clinical picture is pathognomonic. Not less so is the typical history of an infant too long fed and too exclusively fed on cooked food, usually boiled, condensed, commercially pasteurized or dried milk, or on some proprietary preparation without the compensation of vitamine-bearing substance such as orange juice, green vegetables, and cod liver oil. For a long time the little patient has been pale, irritable, capricious in appetite, resentful of even the gentlest handling. As the days and weeks passed, such symptoms increased in intensity, and it was noticed that the child bruised easily, and one day developed swelling about one or another joint. The baby later fell into the condition of pseudopalsy, which brought the parents to their doctor for advice. No other disease of childhood much resembles this quite common malady, and yet, not infrequently, it is mistaken for rheumatism, an affection so rare in early childhood that it can truthfully be said not to attack before the third year. Sometimes these infants fall into the hands of osteopaths and chiropractors, whose manipulations are especially torturing to the tender flesh of the scorbutic.

Mongolism, a condition that comes with obvious mental deficiency, deformed head, ears, and nose, chubby hands and feet, seems often to be confused with cretinism, a physical state in which these peculiarities are also to be found, but the slant eye, smooth, fine skin and fine, sparse hair, and extreme hypotonicity of the mongol, mark its condition as one apart from cretinism. For, in cretinism, the hair is scant, it is true, but coarse. The skin dry and rough, the eyes are normal in shape and position, and hypotonicity is not a feature. A cretin shows besides these features its chubby hands, its myxedema, the aged expression of its face, and peculiar distribution of its sub-

cutaneous fat pads. The subnormal temperature, and the extreme constipation of the child are added points that distinguish the hypothyroid patient, and indicate the need for thyroid feeding.

Quite often, pyelocystitis, commonest cause of fever and malaise in girl-babies is overlooked. Doubtless, this oversight comes because its great prevalence between the eighteenth and thirtieth months of life is forgotten, and perhaps, too, because it is thought a difficult matter to obtain urine samples from young girl patients. It is always possible to catheterize a girl child, and if scrupulous surgical cleanliness is insisted upon no harm can follow. W. P. Lucas has made it possible to obtain urine from girl-babies as easily as from boys, by his discovery that the ordinary cheap glass bird-bath to be found on canary cages is a utensil perfectly adaptable as a urine collector. Such a glass bath can be sterilized, and then be applied to the vulva and fastened in place by the pressure of the pinned diaper. The routine use of such a device will make it possible always to examine the urine of girl-babies, and to render the diagnosis of urinary disease generally possible. For collecting the urine of a boy, nothing is better than a rubber glove. The boy's genitals can be included within the wrist of the glove, which is to be fastened in place by adhesive plaster.

Another rather common disease, hypertrophic pyloric stenosis is a disorder with a distinctive clinical picture, yet it sometimes eludes diagnosis, a misfortune for its victim, for when diagnosed early the treatment by dietetic or operative measures is almost uniformly successful. If every physician would make it a rule to make thorough inspection of the complete, naked bodies of his baby patients, no instance of pyloric stenosis could escape detection, especially if in addition the inspection of the infant's abdomen were made while the child was nursing. Under these circumstances the very characteristic epigastric wave produced by the contracting stomach is easily seen as it passes across the upper abdomen, running at the rate of about twenty contractions to the minute, and equally visible and as striking will be the peculiar, huge, bulging, epigastric area in its contrast with the narrow flattened hypogastric region. Such findings in the case of a constipated baby who began to vomit between the second and fifth weeks of its life, and who continues to vomit persistently and explosively, who passes little urine and shows the results of fluid loss should be enough to rescue the little one from protracted attempts to find a suitable diet. One diet only, the thick, gruel milk feeding holds any promise of help for such a patient. If this fails to check vomiting and to initiate gain within a few days, then a recourse to the Fredet muscle-splitting operation is indicated. With proper surgical technique, provided the patient is not already moribund, this operation is almost certain to be crowned with success.

A more general realization that spastic paraplegia and spasticity, with mental defect, many times are referable to injuries from too prolonged

labor rather than from damage by the forceps which terminated the labor, or to the blood dyscrasis which it is now popular to blame, and that earlier resort to forceps, or, if need be, to Cæsarian section, might be productive of much good to childhood were it more encouraged among those general practitioners whose work includes obstetrics.

It may be said that the practitioner or specialist can improve the diagnosis and the treatment of disease in children in just the same way that he can improve the diagnosis and treatment in any other department of his practice by keeping himself well informed about the bases of medicine, as well as about the peculiarities of the special work. It may be that the fate of many a child would be bettered if we were more critical in the selection of patients for tonsillectomy. The fact that brilliant results follow the removal of diseased or obstructing tonsils is no warrant for the idea that every visible tonsil is a criminal to be forcibly guillotined or guilefully snared to its destruction, and the disillusionment of physician and parent would be less were it more clearly recognized that there are other common causes of persistent mouth breathing than adenoid growths, and that the mere removal of these when present will not make it possible for the child with a high arched palate, deviated septum, enlarged turbinates and anterior rhinitis to breathe through its nose. For a remedy of the high-arched palate we must turn to the orthodontist. The changes in the anterior nares demand long, patient, and painstaking treatment after the removal of the tonsils and adenoid. Not only this, but the general condition of the patient must be improved. Long before tonsillectomy came into vogue, Iodide of Iron was a potent remedy which, together with proper feeding and hygiene, put many a child in condition to fight off the ill-effects of enlarged tonsils or infected adenoids, and used in the same way, it still is potent as an adjunct to the local measures indicated after the removal of an adenoid and tonsils.

Not only for orthodontic aid do we need to call on the dentist. Decay in deciduous teeth most often comes first to the attention of the attending physician. To him also comes the convincing evidence that the care and filling of this early set of teeth is one of the most fruitful prophylactic measures at his command. Unfortunately, he will have to struggle not only to convince indifferent parents, but to overcome the active opposition of dentists, many of whom are unwilling to give their time and detailed work to the preservation of temporary teeth. Fortunately, the dentists of the present generation are coming to their task with a training that makes them able and willing to help the physician in this matter.

Diseased tonsils, bad teeth, nutritional disturbances, and faults of hygiene make up a list to plague those of us who deal with children, but tragedy rarely attends among these, but there are afflictions swift and terrible in their onset for which we must ever be on the watch lest death

catch us unawares and carry off our patient before we sense the danger. Every sick child should be to us a possible victim of these deadly things until we have excluded them one and all—diphtheria, bowel obstruction, appendicitis, especially intussusceptive; mastoiditis, retropharyngeal abscess, early Potts disease, dysentery, typhoid—fortunately, there are not so many. All of them we should have in mind, and their earliest known signs and symptoms should be as familiar to us as the letters of our alphabet. Not only so, but in our reading we ought always to be especially on the lookout for new information about these deadly enemies of childhood.

For the diseases of children this can best be done by knowing well how to refer to late editions of standard books, and a good journal or two such as the American Journal of Diseases of Children, and the "Archives of Pediatrics" should find a place on every practitioner's desk. The perusal of such journals and books kept handy for ready reference will elucidate the peculiarities of physiology and pathology which make the manifestations of disease in juvenile patients so perplexing, especially to those who approach children as if they were adults with an adult psychology and adult types of pathological disturbances. The knowledge so gained will emphasize the need for special methods of attacking problems of physical diagnosis and for special information about the peculiar natural history of certain common diseases as they affect children. Moreover, such a plan will clear many of the problems of infantile nutrition and bring a juster appreciation of the influence of personal and school hygiene.

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#### OSTEOPATHS USE A PLUMB-LINE AND SPIRIT LEVEL TO FIND A PERFECT SPINE

(Quoted from the San Francisco Examiner of Sunday, April 2, 1922):

"We feel sure that there is no such thing as a perfect back in existence. Almost every person can remember having at least one fall or twist or accident that at some time or other wrenched or twisted their spine so that they were laid up or uncomfortable for a day or more. These are all recorded in the spine. . . . The quite astounding fact seems to be that brunettes have better backbones than blondes. That is, the brunette average up to date has been far ahead of the blonde average."

#### BULLETINS OF THE AMERICAN MEDICAL ASSOCIATION

All physicians interested in the activities of the national organization, the House of Delegates or Council on Medical Education and Hospitals and other official bodies of the A. M. A., should be subscribers to the Bulletin of the American Medical Association. The proceedings of the conference of national officers and state secretaries, held in Chicago last November, will be found in recent numbers of this Bulletin. The annual subscription to the Bulletin is 50 cents, and letters should be addressed to N. P. Colwell, M. D., Secretary of the Council on Medical Education and Hospitals, 535 North Dearborn street, Chicago.

#### COMMON PARASITIC DERMATOSES IN SOUTHERN CALIFORNIA \*

By MOSES SCHOLTZ, M. D., Los Angeles.

It is my purpose to call attention to the great prevalence of certain parasitic dermatoses in Southern California. Examination of private and clinical records convinces me that parasitic dermatoses due to ectogenous infection make up not less than 29 per cent of the total number of skin diseases.

I have deliberately omitted all rare and spectacular dermatoses, such as leprosy, granuloma coccidioides, actinomycosis, and lupus, and have limited my remarks to parasitic dermatoses that the family physician is called upon to treat in his daily practice.

This reduces the consideration to skin lesions caused by streptococci-streptodermias; those caused by staphylococci — (staphylo-dermias); tinea and scabies.

That these four parasitic dermatoses make up not less than 29 per cent of skin diseases merits serious attention by physicians.

It is the purpose of this paper to present these parasitic dermatoses, as they have occurred in clinical work, to review their most striking characteristics and to outline briefly their diagnosis and treatment.

*Streptodermias* — The most widespread of all parasitic dermatoses are those due to streptococcal infections (streptodermias). It is surprising how little streptodermic lesions are known to the general profession. Impetigo contagiosa is better known, and yet it constitutes only a very small minority of streptodermias.

There are quite a number of clinical forms of streptodermias of common occurrence. The list includes persistent intertriginous patches, cracks or fissures in the corners of the mouth—so called perleche, and similar lesions in the retro-auricular, naso-labial, axillary and inguinal folds. Another rather common form is the inflammatory patchy form streptodermatitis. It occurs in single or multiple patches, most often on the limbs or the trunk of the body and, if left untreated, may last many months and even years.

These lesions usually diagnosed as plain chronic eczema, and treated with bland, indifferent ointments, such as zinc oxide, boric ointments, and Lassar paste. Occasionally they are regarded as syphilitic lesions with which they have a considerable resemblance.

The clinical features of the various types of streptodermas are sufficiently characteristic to make clinical diagnosis secure. The principal features are: sharply defined circinate borders of deep dark red color or occasionally suggesting violaceous. The lesions feel soft, with a soft, thin crusting. Itching is slight or absent; infiltration is never as deep as in syphilis, and the surface is never harsh and rough as in plain eczema. An important differential feature is that common

\* Read before the Southern California Medical Society at the San Diego Meeting, April 7, 1922.